



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,588	04/24/2007	James Stanislaus Williams	WRIOTA-P001	4922
29995 7590 02/22/2010 KNOBBE MARTENS OLSON & BEAR LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614				
EXAMINER YOHIA, CONNIE C				
ART UNIT 2827		PAPER NUMBER		
NOTIFICATION DATE 02/22/2010		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jcartee@kmob.com
eOAPilot@kmob.com

Office Action Summary

Application No.

10/582,588

Applicant(s)

WILLIAMS ET AL.

Examiner

CONNIE C. YOHA

Art Unit

2827

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17, 35, 36 and 51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-17, 35, 36 and 51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 3/20/07, 11/21/07
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This office acknowledges receipt of the following items from the Applicant:

Papers submitted under 35 U.S.C. 119(a)-(d) have been placed of record in the file.

Information Disclosure Statement (IDS) filed on 3/20/07 and 11/21/07 were considered.
2. Claims 1-51 are presented for examination.
3. Claims 18-34 and 37-50 are canceled.
4. Claims 1-17, 35-36 and 51 are pending.

Abstract

5. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 250 words. It is important that the abstract not exceed 250 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1-17, 35-36 and 51 are rejected under 35 U.S.C. 102(b) as being anticipated by Albrecht et al, Pat. No. 7403467.

With regard to claim 1, Albrecht discloses an information storage process, including: applying pressure to one or more regions of a (col. 12, line 19-26) substance ; and storing information in said one or more regions by removing said pressure (col. 1, line 13-24) (col. 14, line 37-39) (also with regard to claim 35).

With regard to claim 2, Albrecht discloses wherein said one or more regions provide one or more memory cells for a memory device (col. 2, line 19-24).

With regard to claim 3, Albrecht discloses wherein dimensions of each of said memory cells are on a nanometer scale (col. 12, 6-10) (also with regard to claim 36).

Art Unit: 2827

With regard to claim 4, Albrecht discloses including measuring a property of said one or more regions to determine the information stored in said one or more regions (col. 12, 27-60).

With regard to claim 5, Albrecht discloses wherein said property includes conductivity or resistance (col. 12, 42-48).

With regard to claim 6, Albrecht discloses wherein the applying and removing of pressure includes transforming said one or more regions from at least one first phase to at least one second phase (col. 3, line 1-19) (also with regard to claim 7-8 10-11 and 51)

With regard to claim 9, Albrecht discloses wherein said substance is substantially silicon (col. 2, line 19-24).

With regard to claim 12, Albrecht discloses wherein the applying and removing of pressure includes controlling at least one of the applying and removing of pressure to determine the information stored in said one or more regions (col. 12, line 27-60) (also with regard to claim 13 and 14).

With regard to claim 15, Albrecht discloses wherein the pressure is selected from a plurality of predetermined pressures to provide multi-bit information storage in each of said one or more regions (col. 3, line 1-4) (also with regard to claim .

Allowable Subject Matter

7. Claim 16 and 17 are objected as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record does not show the limitation of wherein the applying and removing of pressure changes the electrical conductivity of said one or more regions from a first electrical conductivity to a second electrical conductivity, and the process further includes applying pressure to and removing pressure from said one or more regions to change the electrical conductivity of said one or more regions from said second electrical conductivity to a third electrical conductivity, wherein the third electrical conductivity is substantially equal to the first electrical conductivity.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure. Cherubini et al (7436748), Durig et al (6084849), Mejia (7460462), Foster et al (4916688), Liu et al (6387530) and Rust (7233517) disclose a memory device having high density data storage reading and writing using probes.

9. When responding to the office action, Applicants' are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist the examiner to locate the appropriate paragraphs.

Art Unit: 2827

10. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned (see MPEP 710.02 (b)).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to whose telephone number is (571) 272-1799. The examiner can normally be reached on Mon. - Fri. from 8:00 A.M. to 5:30 PM. The examiner's supervisor, Amir Zarabian, can be reached at (571) 272-1852. The fax phone number for this Group is (571) 273-8300.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov> Should you have questions on access to the Private Pair system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Connie C. Yoha/

Primary Examiner, Art Unit 2827